

easier to manufacture than prior art systems and devices employing toroidal cores, especially in the ungapped aspects of the invention.

Advantageously, the core is composed of amorphous metal alloy. This alloy has, in combination, saturation induction that is typically > 1.5 T, high Curie temperature, and very low magnetic core loss. As a result, an ignition core-coil assembly comprising amorphous metal: (i) may be made smaller; (ii) may be located at or near the cylinder head of an operating internal combustion engine; (iii) is able to act reliably in providing real-time cylinder combustion information; and (iv) exhibits improved overall engine efficiency. These benefits endow an ignition system employing the core-coil assembly recited by present claims 1-18 with significant advantageous not obtained by prior art systems, which use either a single ignition coil and distributor, or multiple magnetic cores composed of crystalline material.

Moreover, the present invention provides convenient ways for achieving a core having high flux swing both in gapped and ungapped aspects. An ungapped core having a permeability ranging from about 100 to 300 is readily achieved without the need for gapping. Such a core, as called for by present claims 8-14 and 17-18, is especially advantageous for applications necessitating low radiated electromagnetic (radio) interference and a highly accurate cylinder monitoring capability.

Claims 1 - 18 were rejected as being based upon a defective reissue declaration under 35 U.S.C. §251.

The Examiner has indicated that the reissue declaration filed with the instant application is defective under 37 CFR §1.175 (2) because it fails to contain a statement that all errors which are being corrected in the reissue application up to the time of the filing of the declaration arose without any deceptive intention on the part of the applicant.

In order to expedite prosecution of this application, applicants submit herewith a supplemental reissue declaration under 37 CFR 1.175(b)(1) signed by each of the inventor/applicants named in the present reissue application. The inventors aver therein that all of the errors being corrected in the present application up to the date of the declaration occurred without any deceptive intention on the part of the applicants.

In view of the original and supplemental declarations under 37 CFR 1.175(b)(1) by the inventors in the present matter and the foregoing remarks, it is submitted that the applicants have properly averred that all of the errors for which correction is sought in the instant reissue application arose without deceptive intent on the part of the applicants and that their declaration thus satisfies the statutory requirements of 37 CFR §1.175 (2) and 35 U.S.C. §251.

Accordingly, reconsideration of the rejection of claims 1-18 under 35 U.S.C. §251 is respectfully requested.

Claims 8-18 were rejected under 35 U.S.C. §251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based.

The Federal Circuit has set forth in the case of In re Clement tests that are submitted to be applicable in the consideration of the present reissue application. The court calls for a two-step test, wherein there is determined: (i) whether, and in what aspect, the reissue claims are broader than the patent claims; and (ii) whether the broader aspects of the reissue claims relate to surrendered subject matter. With respect to (ii), the Court writes, "To determine whether an applicant surrendered particular subject matter, we look to the prosecution history for arguments and changes made to the claims in an effort to overcome a prior art rejection." In re Clement, 131 F.3d 1469, 45 USPQ 2d 1164 (emphasis added).

Applicants submit that present claim 8, and claims 9-12 dependent thereon, are broader in some respects and narrower in other respects than claim 1 of issued U.S. Patent 5,868,123, whose re-issue is now sought. More specifically, in comparison with the subject matter of original claim 5 (now set forth in independent form as issued claim 1) presently pending claim 8 (i) excludes the compositional limit incorporated from originally presented claim 5 into issued claim 1; (ii) excludes the requirement of heat treatment incorporated from originally presented claim 2 into issued claim 1; (iii) adds a requirement that the core be non-gapped contained by originally presented claim 6 but not contained by issued claim 1; and (iv) adds a requirement that the core have a permeability ranging from about 100 to 300, the requirement being not present in issued claim 1.

The prosecution history of the '123 patent includes an Office Action dated March 31, 1997 which indicated that original claims 5 and 8 were objected to as depending from rejected claims but would have been allowable if written in independent form. Original claim 5 depended from original claim 2, which, in turn, depended from original claim 1.

Subsequent to the Office Action, a telephonic interview was conducted on June 18, 1997 during which Examiner Argenbright and applicants' attorney of record, Mr. Buff, agreed on a proposed amendment in which original claim 1 was modified to incorporate therein the limitations of original claim 5. The changes were entered by way of an Examiner's Amendment, after which the case was allowed. An amendment after allowance was filed on August 19, 1997, so as to comply with the Examiner's requirement by providing a formal drawing depicting Figs. 4a and 4b and amending the specification to reference the subject matter incorporated in the newly submitted drawing.

Significantly, the Examiner Interview Summary Record of the telephonic interview conducted June 18, 1997 indicates that no prior art references were discussed. The Examiner's Record states: "Changes to claims set forth on the attached Examiner's Amendment places application in condition for

allowance.” Moreover, the Notice of Allowability dated June 23, 1997, does not contain any Reasons for Allowance. It is thus respectfully submitted that the subject matter of original claim 5 was never amended or restricted to overcome prior art to obtain its allowance, the claim having been objected to, but indicated as being allowable if re-written in independent form. As noted hereinabove, the text added by Examiner’s Amendment to original claim 1 was literally present in claims 5 and 2 (on which claim 5 originally depended) as originally filed.

The Examiner has acknowledged that applicants made no argument on the record that any limitation added to the originally filed claims was made for the sake of overcoming prior art. Applicants thus submit that while present claim 8 is broader in certain respects than issued claim 1, the broadening is not germane to any prior art rejection of the subject matter of original claim 5, there having been no such rejection, so that the recapture rule does not operate to bar any broadening in present claim 8. That is to say, the broadening of presently pending claim 8 is not the recapture of material surrendered for the sake of patentability, nor was its surrender ever required as a predicate for patentability. Absent evidence of narrowing, it is submitted that reissue is proper. In re Willingham, 282 F.2d 353, 127 USPQ 211, 215 (C.C.P.A. 1960).

~~Applicants’ present claim 13, and claim 14 dependent thereon, are submitted to be broader in some respects and narrower in other respects than claim 1 of issued U.S. Patent 5,868,123, whose re-issue is now sought. More specifically, in comparison with the subject matter of original claim 5 (now set forth in independent form as issued claim 1) presently pending claim 13 (i) broadens the compositional limit incorporated from originally presented claim 5 into issued claim 1; (ii) includes the requirement of heat treatment incorporated from originally presented claim 2 into issued claim 1; and (iii) adds a requirement that the core have a permeability ranging from about 100 to 300, the requirement being not present in issued claim 1.~~

As set forth above in connection with present claims 9-12, applicants respectfully submit that the subject matter of present claim 13 is not broadened in any aspect germane to a prior art rejection of the subject matter of original claim 5 (now set forth in independent form as issued claim 1), there having been no prior art rejection of original claim 5. Accordingly, it is submitted that the recapture rule does not operate to bar reissue of present claims 9-12.

Applicants submit that present claims 15 and 16 dependent thereon, are broader in some respects and narrower in other respects than claim 1 of the '123 patent. More specifically, in comparison with the subject matter of original claim 5 now set forth in independent form as issued claim 1, presently pending claim 15 (i) broadens the compositional limit incorporated from originally presented claim 5 into issued claim 1; (ii) excludes the requirement of heat treatment incorporated from originally presented claim 2 into issued claim 1; (iii) adds the requirement that the core be non-gapped contained by originally presented claim 6 but not contained by issued claim 1; and (iv) adds a requirement that the core have a permeability ranging from about 100 to 300, the requirement being not present in issued claim 1.

The considerations set forth above in connection with present claims 9-12 are equally applicable for present claims 15 and 16. No broadening aspect of present claims 15 and 16 is germane to a prior art rejection of original claim 5, there having been no rejection thereof. Accordingly, it is respectfully submitted that the recapture rule should not be applied to bar reissuance of present claims 15 and 16.

Applicants submit that present claims 17 and 18 dependent thereon, are broader in some respects and narrower in other respects than claim 1 of the '123 patent. More specifically, in comparison with the subject matter of original claim 5 now set forth in independent form as issued claim 1, presently pending claim 17 (i) broadens the compositional limit incorporated from originally presented claim 5 into issued claim 1; (ii) excludes the requirement of heat treatment incorporated from

originally presented claim 2 into issued claim 1; and (iii) adds a requirement that the core have a permeability ranging from about 100 to 300, the requirement being not present in issued claim 1.

As set forth above in connection with the rejection of claims 8-16 under the recapture rule, applicants respectfully submit that the subject matter of claims 17 and 18 is not broadened in any aspect germane to a prior art rejection of original claim 5 now incorporated in independent form in issued claim 1, there having been no prior art rejection of the subject matter of original claim 5. Applicants thus submit that present claims 17 and 18 should not be subject to application of the recapture rule.

In *Hester Indus. Inc. v. Stein*, the Federal Circuit has stated that "This court's prior opinions indicate that, as a general proposition, in determining whether there is a surrender, the prosecution history of the original patent should be examined for evidence of an admission by the patent applicant regarding patentability." 46 USPQ 2d 1641, 1648 (Fed. Cir.), *cert. denied*, 525 U.S. 947 (1998). It is respectfully submitted that the prosecution history of the instant patent is devoid of any such evidence, insofar as applicants never argued the patentability of any of the originally presented claims. As discussed hereinabove in greater detail, the Examiner's Record of the telephonic interview clearly and explicitly states that no prior art was discussed. That Record further indicates that agreement was reached by which the subject matter of original claim 5 without limitation was delineated by rewriting claim 1 to incorporate the limitations of original claims 2 and 5. Insofar as there is no evidence that any prior art figured in that discussion, applicants submit that there is no basis for establishing any admission by applicants regarding the patentability of any of the original claims, let alone any admission concerning the prior art that was made of record and cited by the Examiner in the March 31, 1997, Office Action, which preceded the June 18, 1997 telephonic interview. In fact, one would be led away from such a conclusion by the explicit absence of a reference to any prior art considered during that interview. As the court has also emphasized, "... the reissue statute ... should be liberally

construed so as to carry out its purpose to the end that justice may be done to both patentees and the public. *In re Oda*, 170 USPQ 268, 270 (C.C.P.A. 1971).

The Examiner has stated that "The limitation omitted in the reissue was added in the original application claims for the purpose of making the claims allowable over a rejection or objection made in the application. Even though applicant made no argument on the record that the limitation was added to obviate the rejection, the nature of the addition to the claim can show that the limitation was added in direct reply to the rejection. This too will establish the omitted limitation as relating to subject matter previously surrendered."

This statement of the Examiner is, respectfully, traversed. No evidence has been adduced that the amendment of claim 1 to incorporate the limitations of original claims 2 and 5 was made to overcome an art rejection and thus entailed surrender of subject matter. From the outset the Examiner clearly regarded the subject matter of claim 5 as being patentable, save for the objection that original claim 5 depended from a rejected claim. Furthermore, the Examiner has not pointed to any further statement during prosecution of the application, whether written or verbal, that sheds any light whatsoever concerning the nature of the addition to the claim. Surely, the Examiner has not identified any evidence that would support an inference that incorporation of the dependent claim limitations into claim 1 served the purpose of distinguishing prior art. To the contrary, the evidence of record clearly indicates that the allowability of the subject matter incorporated by claim 1, as amended, was never in question. These factors clearly demonstrate that the nature of the claim 1 addition served a purpose other than prior art differentiation; and that the limitation was not added in direct reply to a prior art rejection. The Federal Circuit has required such evidence in ruling that "The recapture rule does not apply where there is no evidence that amendment of the originally filed claims was in any sense an admission that the scope of that claim was not in fact patentable." *Mentor Corp. v. Coloplast Inc.*, 27

USPQ 2d 1521, 1525 (Fed. Cir. 1993). See also *Seattle Box. Co. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984). Moreover, “The extent to which [the deliberate cancellation of a claim] it may also prevent [applicant] from obtaining other claims differing in form or substance from that cancelled necessarily depends upon the facts in each case and particularly on the reasons for the cancellation.” *Mentor Corp. v. Coloplast Inc.*, 27 USPQ 2d 1521, 1524 (Fed. Cir. 1993). In the present case, none of claims 8-18 was presented in the original prosecution and each differs in form and substance from the claims presented at any point in the original prosecution. Each of claims 8-18 includes significant new limitations that, although clearly supported by the original specification and intended to be claimed, erroneously were not present in the originally presented claims or in the claims that finally issued in the ‘123 patent. It is respectfully submitted that the particular facts and reasons for the cancellation of claims in the original application have not been discussed by the Examiner so as to establish the applicability of the recapture rule in regard to present claims 8-18.

The Examiner has pointed to Example B of MPEP 1412.02 as establishing recapture. However, it is respectfully submitted that the facts of that example differ materially from those in the present application. The cited Example concerns a new limitation added to an extant claim. In the present case, the subject matter of claim 5 was not rejected over the art, and no limitation to its subject matter was added, or indeed, was even needed to predicate patentability.


In view of the foregoing remarks and the file history of the ‘123 patent, applicants respectfully submit that none of present claims 8-18 delineates any aspect germane to a prior art rejection of the subject matter of original claim 5, which is now set forth in independent form as issued claim 1 of the ‘123 patent.

Accordingly, reconsideration of the rejection of claims 8-18 under 35 U.S.C. §251 as being an improper recapture of subject matter surrendered during prosecution of the '123 patent is respectfully requested.

In view of the remarks set forth above, it is submitted that the present application is in allowable condition. Reconsideration of the rejection of present claims 1-18 and allowance of this application are, therefore, earnestly solicited.

Respectfully submitted,

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STATEMENT OF REVIEW OF PAPERS AND PRIOR ART

We hereby state that we have reviewed and understood the contents of the application, including the claims, and including the prior art. We have also reviewed the prior art and the claims of the application and we have determined that the claims of the application are novel and non-obvious over the prior art.

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